



SER BRISBANE 
AUSTRALASIA September 25-28 **2018**

Conference Handbook



Handbook



Sponsors:



Organising Institutions:



Trade Organisations:



Thank you

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1 Welcome to Delegates of SERA 2018

Never before in the earth's geological history have global ecosystems, species and humans themselves been so challenged. By the end of this earth day, another 200,000 mouths will need to be fed. Each night, 870 million people go to bed hungry. We now challenge the environment and our remnant wild nature more than ever.

Importantly we use resources at 50% the rate that the planet can sustain.

The world we face is one that is daunting indeed – a world without nature, natural resources and a world which will become increasingly difficult for us to live in. We only need to look at the biodiversity hotspots in the Australasian region to realise that all these regions are in a rapid and precipitous decline in their natural values – New Zealand alone now contains more weed species than native species with another 2000 'sleeper weeds' in home gardens.

But we are all here because we have a shared belief in a planet where the combined intellectual and creative capacity of humans is harnessed to restore nature, natural capital and by extension, our ability to live in a future world replete with nature.

Ecological restoration represents a response to the way we have changed the planet. As a science, practice and activity touching the lives of so many people worldwide ecological restoration represents major new scientific, industry and community challenges. Champions of industry now laud repair and restoration of ecosystems as part and parcel of doing business with one resource company CEO recently saying, *"Our business is only as good as our restoration"*.

But the journey has just begun and we have much to do. This does not mean we 'lower the bar' on our restoration prospects otherwise we are selling nature short. For all of us attending the conference and beyond, we need to encourage our future stakeholders – our students who will become restoration scientists, our communities who will be the guardians of future nature and our rich indigenous cultures who are custodians of so many important ecosystems.

So in conclusion, enjoy your time here in Queensland and Brisbane and the warm hospitality of our hosts. Importantly without the professionalism and dedication of the organisers, particularly the local team, a conference of this breadth and depth would not have been possible. I know I extend from the participants and the Board of SERA a sincere vote of thanks for a job done superbly.

Kingsley Dixon

Chair, Society for Ecological Restoration Australasia (SERA)

Welcome Message

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2 About SERA

The Society for Ecological Restoration Australasia (SERA) is a non-profit peak body in restoration and rehabilitation that connects practitioners, industry, community and scientists across Australasia and through the peak international organisation, the Society for Ecological Restoration (SER).

Founded in 2011, SERA now has members in 17 countries, and provides restoration support throughout Australasia. SERA dovetails with the other 12 SER chapters that serve the regions of Asia, North America, and Europe and their 2300 global members.

SERA's members are individuals and organizations who are actively engaged in ecologically-sensitive repair and management of ecosystems through an unusually broad array of experience, knowledge sets and cultural perspectives. They are scientists, planners, administrators, ecological consultants, natural areas managers, growers, community activists, and volunteers, among others.

With SER (the parent body) recognised by public and private enterprises as the source for expertise on restoration science, practice and policy, SERA aims to further develop regional expertise and achieve its objectives through cooperation with partner organizations and the work of its Australasian membership.

SERA aims to:

- Promote ecological restoration and the principles of ecological restoration as outlined in the Primer of the Society for Ecological Restoration International.
- Promote an awareness of the need to conserve, protect, enhance and restore natural resources and promote natural ecological processes.
- Contribute to and promote the development of policies that support ecologically sustainable land use.
- Promote ecological restoration and the principles of ecological restoration through adherence to the international principles and aspirations of SER.
- Obtain financial support for activities that will promote and ensure leading practice in ecological restoration and associated activities.
- Facilitate two-way technological transfer between the fundamental sciences and practitioners of ecological restoration.

SERA serves the growing field of ecological restoration through facilitating dialogue among restorationists, encouraging research, promoting awareness of and public support for restoration and restorative management, contributing to public policy discussions, recognizing those who have made outstanding contributions to the field of restoration, and promoting ecological restoration throughout Australasia through.

Conferences are the lifeblood of the SERA, where members and interested people can convene to exchange ideas and information, and participate in workshops, field trips and other activities.

About SERA



3 About the Conference

SERA is dedicated to providing education, specialised training, and networking opportunities for ecological and environmental professionals working together to meet the challenges of ecosystem restoration. SERA2018 provides an interactive forum for physical, biological, and social scientists, practitioners, engineers, resource managers, planners, and policy makers to share their knowledge, experiences and research concerning terrestrial, aquatic and marine ecosystem restoration on both national and international levels.

SERA conferences are held once every two years. The theme for 2018 is Striving for Restoration Excellence and will provide the foundation, tools and latest research to make the most of your restoration project. The conference program includes a combination of keynote, symposium, oral and poster presentations, spanning an array of themes from principles and practice, biomes, impact and specialist disciplines.

The conference strongly encourages the participation of Indigenous ecologists, offering an Indigenous values in restoration session to create a better link with Indigenous people working in ecology and land management.

4 Conference Organising Committee

Kingsley Dixon - ARC Centre for Mine Site Restoration, Curtin University; Chair of SERA

Peter Erskine - Centre for Mined Land Rehabilitation, The University of Queensland; SERA General Board Member

Jen Ford - Principal Restoration Ecologist, Ecosure; SERA General Board Member

Valerie Hagger - Centre for Excellence in Environmental Decisions, The University of Queensland; SERA Ex-officio Board Member (Early Career and Student representative)

Tein McDonald - Principal, Tein McDonald & Associates; Editor, Ecological Management & Restoration; SERA General Board Member (Affiliate and ENGO communication)

Renee Young - ARC Centre for Mine Site Restoration, Curtin University

Vanessa MacDonald - ARC Centre for Mine Site Restoration, Curtin University

Simone Pedrini - ARC Centre for Mine Site Restoration, Curtin University

Haylee D'Agui - ARC Centre for Mine Site Restoration, Curtin University

The Conference



Preserving the world's
natural brilliance.

Ecology

Terrestrial and aquatic environmental solutions

Wildlife

Threatened species and human-wildlife conflict

GIS

Mapping, modelling and conservation planning

Ecological Restoration

Restoring our natural systems

Water

Quality, monitoring and management

Marine

Assessments and holistic restoration

Development

Construction science and compliance



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5 Venue

5.1 Venue

The venue of SERA2018 is the Hawken Engineering Building at The University of Queensland (UQ), St Lucia, Brisbane. As one of Australia's leading universities, UQ is consistently ranked first for business administration, mining engineering and life sciences in Australasia and is top ten in global ranking for environmental sciences and ecology.

Address: Hawken Engineering Building, access via Cooper Rd, St Lucia, QLD 4072

5.2 Maps and floor plans

St Lucia campus map



St Lucia campus parking map



Lunch venue



Venue

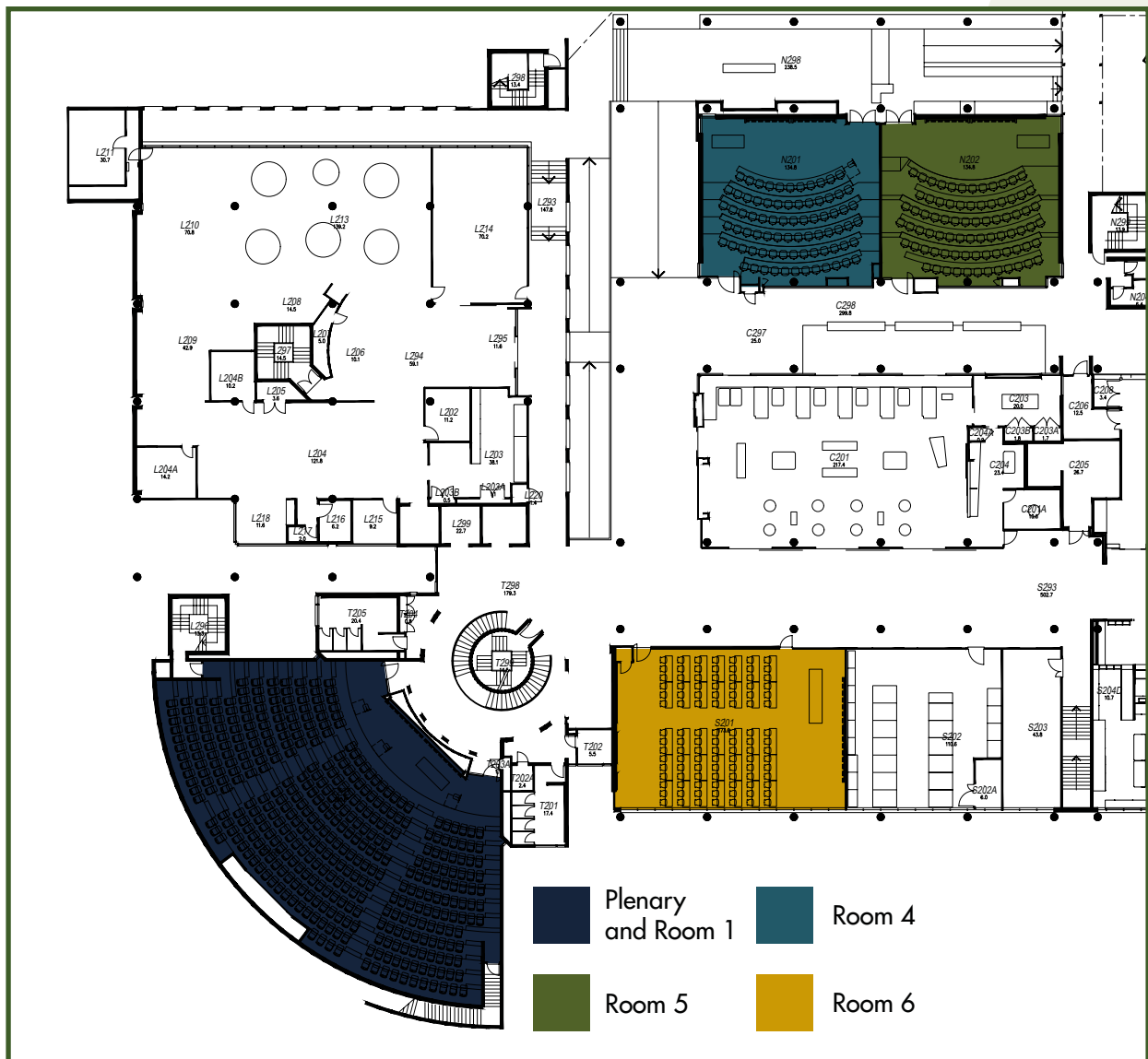
Hawken Engineering Building

Level 1



Hawken Engineering Building

Level 2



Conference staff will be available at the registration desk for all registered delegates to collect their conference materials. The registration desk will be located at the entrance of the Hawken Engineering Building.

Venue



5.2.1 Public Transport

St Lucia campus has frequent public bus services from Brisbane CBD, Toowong and Indooroopilly. Some routes travel via rapid-transit busways, which offer congestion-free services to and from campus. St Lucia campus has two bus stations, located at Chancellor's Place and UQ Lakes.

Ferry is a scenic way to travel to St Lucia campus from riverside suburbs, including South Bank, Toowong and West End. The campus CityCat terminal is on Sir William Macgregor Drive, near the UQ Lakes bus station and the Eleanor Schonell Bridge.

Information on routes and timetables can be found on the Translink website:

<https://translink.com.au/>

If travelling from Toowong, it is a short walk to ferry or bus to UQ, which takes 10 minutes. Catch Route 412 from the bus stop on Coronation Drive or CityCat towards UQ St Lucia from the Regatta ferry terminal.

If travelling from South Bank, it is a short walk to ferry or bus to UQ, which takes 15-25 minutes. Catch Route 66 from South Bank busway station or CityCat towards UQ St Lucia from South Bank 2 Ferry Terminal.

5.2.2 Cycle

St Lucia campus is easily accessed by bicycle, with a safe riverside bicycle path in Toowong, and the Eleanor Schonell Bridge (bus, cycle and pedestrian bridge only) in Dutton Park connecting the campus to the Brisbane CBD and surrounding suburbs.

You can use the Brisbane City Cycle on a casual basis to hire bikes from stations across inner Brisbane. There are stations at UQ St Lucia. Just bring your helmet. Information on stations and fees can be found on their website: <http://www.citycycle.com.au/>

5.2.3 Parking

We strongly encourage using public transport where possible. But if you need to drive, parking should not be a problem during the conference period as it is mid-semester break. Paid casual parking is available at UQ St Lucia in the Blue zone (14P daily). Consult the parking map for locations. Currently \$5 per day.

6 Event Information

6.1 Registration Desk

Conference staff will be available at the registration desk for all registered delegates to collect their conference materials. The registration desk will be located at the entrance of the Hawken Engineering Building.

The registration desk will be open at the following times:

Date	Times
Tuesday 25 September	8.00am – 6.45pm
Wednesday 26 September	8.00am – 6.45pm
Thursday 27 September	8.00am – 5.00pm

The Event



Registration desk staff are here to assist you. If you have any questions or need any local information, please see the friendly staff at the registration desk.

6.2 Registration Inclusions

Registration fees include full access to all conference sessions; buffet lunches and coffee breaks on all three days of the conference program; participation at non-ticketed social events including the poster and trades function and early career session (if relevant).

There are additional fees for pre and post conference field trips and the conference gala dinner. If you have not yet booked in for field trips or the gala dinner and still wish to attend, please see our registration desk staff as soon as possible to check availability.

6.3 Accompanying Partners and Children

SERA 2018 is a kid-friendly conference. You are welcome to bring your child/children along, as well as a support person. They can eat for free, there are parenting rooms available, and there are childcare options. Lunches will be held under marquees by UQ lakes, and the campus has many open spaces and a great aquatic centre. Please note: Accompanying Partners will not be given access to conference sessions.

The nearest parenting rooms are located at:

- Room 350A, Sir James Foots Building (Building 47A). Equipment: fridge, comfortable chair, table, power point, sink with hot and cold water, change table (building behind conference venue).
- Room 606, Advanced Engineering Building (Building 49). Equipment: comfortable chair, table, power point, sink with hot and cold water, change table (building close to lunch venue).

6.4 Name Badges

Your name badge is entry to all sessions, events and all catering services. Please wear your name badge at all times.

6.5 Certificates

Certificates for attendees and presenter authors can be requested at the registration desk or by emailing katie@loud.events. All attendance certificates will be sent electronically.

6.6 Catering

Conference registration includes morning tea, lunch and afternoon tea on Tuesday, Wednesday and Thursday of the conference. Pre-arranged dietary requirements that cannot be catered for with the standard selection will be available at a separate station. If you have any concerns with dietary requirements, please see registration desk staff.

Lunches will be served at the UQ Natural Amphitheatre, located a short walk from the conference building. Conference staff and volunteers will be on hand to direct delegates to the Natural Amphitheatre.



6.7 Lost and Found

There will be a lost and found maintained at the registration desk. We kindly ask delegates to take any found items to the registration desk.

6.8 Speakers Preparation

Speakers are required to check-in at the registration desk prior to 9am on the day of your presentation. We are encouraging presenters to allow their PowerPoint presentation to be uploaded on the website after the event. If you are happy for your presentation to be available, please let the team at the registration desk know or advise us by email to katie@loud.events. The Speakers' Preparation Desk will be located near the registration area and will provide a centralised service for the easy transfer of presentation materials. At the Speakers Preparation Desk an experienced audio-visual technician will be available to load your presentation to your allocated session. You will need to arrive either the day prior, or at the very latest, prior to 9am on the day of your presentation to allow the technician to upload and check your presentation. Check the program for the room and hours.

Further instructions for presenters is provided in Section 7.

Date	Times
Tuesday 25 September	8.00–9.00am, 10.30-11.00am, 12.00-1.00pm
Wednesday 26 September	8.00–9.00am, 10.30-11.00am, 12.00-1.00pm
Thursday 27 September	8.00–9.00am, 10.30-11.00am, 12.00-1.00pm

6.9 Mobile Phones

Mobile phones and tablets should at all times be switched off or operated in "silent" mode out of consideration for speakers and other conference attendees.

6.10 Wireless Internet

Complimentary wireless internet connection will be available to all delegates. You will need a username and code which you can obtain from the registration desk.

6.11 Social Media

We encourage use of social media during the conference. However, please note the following SERA2018 Twitter etiquette:

- Use the official twitter hashtag: **#SERA2018**
- Please positively promote the society and the conference
- Please tweet responsibly
- Ensure you are always polite, respectful, and inclusive
- Check before you tweet pictures of people and pictures of data
- If you wish to send pictures for use in SERA social media, please send to:
Sera2018photos@gmail.com

6.12 Emergency First Aid & Medical

Emergency telephone numbers are:

UQ Security – 07-3365-3333

Police, Fire and Ambulance – 000

Dental – 07-3830-4157

The Event



The nearest Public Hospital Adult's Emergency is at the **Mater Hospital Brisbane**, Stanley Street, South Brisbane, Telephone: **07-3840-8111**

The nearest Public Hospital Children's Emergency is the **Lady Cilento Children's Hospital**, Stanley Street, South Brisbane, Telephone: **07-3068-1111**

The nearest Private Hospital Emergency (both adults and children) is at the **Wesley Hospital**, Chasely Street, Auchenflower, Telephone: **07-3232-7000**

In an emergency contact **UQ Security on 07-3365-3333**. Emergency includes fire, medical, environmental, bomb threats, any critical incident. For general enquiries and non-urgent matters, phone **Security on 07-3365-1234**. Security if available 24 hours a day, 7 days a week.

6.13 Emergency Evacuation

Conference staff are trained to respond to emergency situations. If the conference has to be evacuated, audible alarms will sound. Staff and volunteers will assist patrons to evacuation routes and assembly points during an emergency evacuation.

6.14 Luggage Storage

There will be no luggage storage available onsite at the conference venue. We suggest that you store luggage at your accommodation facility if required.

6.15 International Delegates

A warm welcome to Australia to our international delegates. The official language of SERA2018 is English. For more information on the location of your embassy, please visit www.embassy-finder.com

6.16 SERA Annual General Meeting

SERA's Annual General Meeting (AGM) will be held during the conference on Tuesday 25th September between 19:00 - 20:30 (GMT + 10 hours) at Saint Lucy Caffe, UQ St Lucia. Elections results will be announced at the AGM. All current members are invited to attend. For those that can't attend, the AGM will also be conducted via teleconference to allow as many members as possible to contribute. Please RSVP to Michael Just (SERA Secretary) at sera@seraustralasia.com

7 Instructions for Presenters

7.1 Oral Presentations

As an open oral presenter in a concurrent session, you will be allocated 15 minutes to present, inclusive of 3 minutes for questions and discussion from the audience. A session chair will keep time and indicate minutes remaining. Should you run overtime, the session chair will stop your presentation regardless of if you are finished or not. This ensures your fellow speakers all receive their allocated presentation time too.



7.2 Symposium Presenters

As a symposium presenter in a symposium session, you will be allocated 15 minutes to present, inclusive of 3 minutes for questions and discussion from the audience. Your symposium facilitator will keep time and indicate minutes remaining. Should you run overtime, the facilitator will stop your presentation regardless of if you are finished or not. This ensures your fellow speakers all receive their allocated presentation time too.

7.3 Keynote Presenters

As a keynote presenter, you will be allocated 30 minutes to present, inclusive of 5 minutes for questions and discussion from the audience on your individual presentation.

Please ensure that your presentation is pre-loaded and in working order prior to the beginning of your session. It is also advisable to bring a printed copy of your presentation just in case of technical difficulties. Speakers are asked to load their presentations with technicians at the designated speaker's preparation desk the day prior to their session, or at the very latest, prior to 9am on the day of your presentation.

All speakers for any given session are asked to present themselves to the session chair or symposium organiser, **10 MINUTES** prior to their allocated session. They are asked to remain in that session until their presentation and sit in the row nearest to the stage, so that change-over times are decreased.

7.4 Audio Visual Presentation

Please ensure that your presentation clearly describes outcomes and lessons learned. The process/method and achievements that have already been implemented should be a key factor and we encourage you to share your achievements and practical experience where possible. Remember you will be presenting to an international audience, so describing your achievements, lessons learned and transferable outcomes will be of interest to your audience.

Your audience will be a mix of restoration practitioners, scientists, policy makers, community members and industry/business representatives.

We kindly ask that all speaker presentations are saved in the following format:

FIRST NAME SURNAME_Presentation Title (i.e JANE DOE_Shellfish Restoration in Great Barrier Reef)

All presentations will need to be saved as a Powerpoint file in 16:9 ratio, preferably on a white background.

7.5 Poster Presentations

Poster presenters will hang their posters upon arrival at the conference beginning on Tuesday 25 September. All posters should be in place by Tuesday morning at 7.45am prior to the commencement of registration. We will assign each presenter a number corresponding to the board where your poster will be displayed.

Poster presentations will remain on display for the duration of the conference, with one evening poster session on Wednesday 26 September from 4.45pm – 6.45pm, during which time authors will have the opportunity to discuss their presentations with conference attendees. Refreshments will be provided at the poster session.

Posters should be removed on Thursday 27 September from 3.00pm – 5.30pm. Any posters not removed by this time will be recycled. The conference will not be responsible for any posters left behind.



8 Sustainability

SERA is committed to hosting sustainable events that minimise our environmental impact.

To reduce waste, we are minimising all printed materials associated with SERA2018. Delegates can access our Conference Handbook and Book of Abstracts online, by PDF (to be released prior to the conference).

Only the Conference Program will be printed, which delegates will receive in their satchel upon registration.

Water coolers will be available at the conference venue, and we ask delegates to bring their own water bottle to refill. Water, juice, tea and coffee will be served by the caterers at break times, however water bottles will not be provided.

We also ask attendees of the conference field trips to bring along their pre-filled water bottle for the day. There will be spring water available to refill water bottles on the buses.

9 Social Events

9.1 Conference Dinner and Restoration Awards Ceremony

The Conference Dinner and Restoration Awards Ceremony is being held at Hillstone St Lucia on Thursday 27th September at 7pm. Guests will enjoy a banquet style dinner, beverages and live entertainment from a ten-piece soul and funk band to light up the stage and fill the dance floor. As part of the dinner, we will celebrate the recipients of the SERA Awards for Excellence in Ecological Restoration Practice for projects from Australia, New Zealand and the Pacific Islands. Dress code is smart casual.

The Conference Dinner and Restoration Awards Ceremony is not included in the registration fee. Tickets should have been pre-booked and paid for with registration. If you have not booked a ticket to the gala dinner and would now like to attend please see the registration desk staff as soon as possible.

9.2 Student and Early Career Function

Students and early career professionals (within five years of their career) are invited to join us on Tuesday 25th September from 4:45pm – 6:45pm to discuss the variety of career paths available in restoration with a panel of key people in research, government, practice and industry. This will be an excellent opportunity to ask questions, get advice on the job market and explore your options. Canapés and beverages will be served.

This function is included in the registration fee for students and early career delegates. However, tickets should have been pre-booked with registration. If you have not booked a ticket and would like to attend please see the registration desk staff as soon as possible.

9.3 Poster and Trades Function

All delegates are invited to attend the Poster and Trades Function on Wednesday 26th September from 4:45pm – 6:45pm. During this time, authors will have the opportunity to discuss their poster presentations with conference attendees. Refreshments will be served.

This function is included in the registration fee for all delegates. However, tickets should have been pre-booked with registration. If you have not booked a ticket and would like to attend, please see the registration desk staff as soon as possible. There will be an award for the best poster and we need judges to decide this. If you wish to be a judge, please see staff at registration desk to pick up the judging criteria and marking form. Judging can be done in your own time.

The Event

9.4 UQ Guided Restoration Walk

The Society for Conservation Biology (SCB) UQ Brisbane chapter will be hosting a free, guided morning walk through a restoration site on the UQ St Lucia campus. The guided walk will go from 7:30am – 8:30am, along the riverside and finishing at UQ Lakes (see map). Please meet at the registration desk at the conference venue (Hawken Engineering Building) at 7.20am for a 7.30am sharp departure. On the walk, we will discuss the methodology behind our restoration design, its purpose of creating habitat connectivity for local birds and butterflies, and the progress SCB UQ Brisbane has been monitoring towards this goal. Some interesting bird species we may see at the restoration area include Striated & Spotted Pardalote, Pied & Grey Butcherbirds, Pied Currawong, Bush Stone-Curlew, White-browed Scrub-wren, Buff-banded Rail and Eastern Whipbird (if very lucky!), and up to 30 waterbird species are regularly at the UQ Lakes.

About the project

SCB UQ Brisbane completed a 3 year joint revegetation project on the UQ campus funded through the Everyone's Environment grant program and focused on riparian vegetation. Data from multiple surveys and volunteer days has been used to inform the final reporting for this project and more than 11,500 trees have been planted. The chapter continues to be involved in ongoing bird, butterfly, and plant cover monitoring, as well as land-care activities.



Location of restoration site: (Orange = UQ restoration site, red = the vegetation corridor to UQ Lakes)



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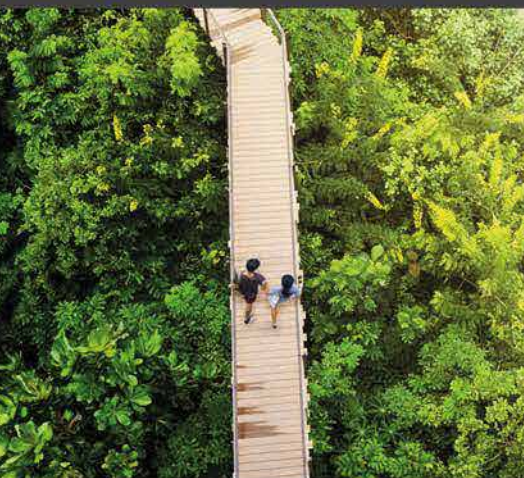
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10 Field Trips

A number of conference field trips are available for conference delegates, as described below. For more information please visit <https://www.sera2018.org/field-trips/>

Packed lunches and snacks will be provided for all field trip attendees. However, please bring along a pre-filled water bottle for the day. Water will be available on the buses to refill water bottles. All field trips will involve walking through the restoration areas, so please bring hats, sunscreen and insect repellent, and wear long sleeve tops and pants, and walking shoes.

The meeting point for the Friday field trips will be at the bus set down outside the Athletics Centre (Building 29a/Playing Fields 7), on the corner of Sir William MacGregor Drive and Campbell Road, UQ, St Lucia at 7.30am. Buses will depart at 8.00am.

If you have not booked a field trip and would now like to attend please see the registration desk staff as soon as possible.

10.1 Field Trip: To the Big Scrub and Back!

This 2- day field trip to northern NSW will occur on 21-24th September (inclusive of travel days) and is a once-in-a-life-time opportunity to look at the progress being made in rainforest restoration in the 'Big Scrub' landscape near Lismore over the last four decades. Big Scrub Landcare's landscape scale restoration program received SERA's 2016 Award for Restoration Excellence in the Australian and large project categories. The very special thing about this field trip is not just the sites but that we have assembled the very best tour leaders including those highly familiar with the works on the sites and with the local botany and ecology. The tour will take in Australia's oldest known modern restoration project (initiated by Ambrose Crawford at Lumley Park, Alstonville, in 1935), historic Victoria Park and Rocky Creek Dam restoration sites, as well as ongoing projects on private property. Strategic planning and collaborations for landscape scale, long term involvement by landholders and agencies will be emphasised. This will be a chance to share an inspiring experience with a small group of like-minded people. The field trip is a collaboration between SERA, the Australian Association of Bush Regenerators and Big Scrub Landcare.

Date and Time: Friday 21st September 5:00pm - Monday 24th September 6:00pm

Cost: Cost will vary depending on accommodation type and whether more than one person is sharing - but indicative costs are \$484 (single) or \$644 (twin share). Accurate costs can be obtained by enquiring through tein.mcdonald@seraustralasia.com and payment of accommodation (through Tein) is required before your field trip booking will be validated. Cancellation cannot be later than 2 weeks prior to the event unless we have a waiting list.

Cost of the field trip includes bus transport for the two days, morning teas, lunches and a BBQ on one evening and bus transport to the SERA2018 conference in Brisbane on Monday 24th. It does not include the cost of travel to Lismore or Ballina, accommodation, room service, breakfasts, evening meals on Friday or Sunday or taxis to or from Lismore. Room service cooked or continental breakfasts are available at the motel and the bus will stop at food shop for picking up your own breakfast ingredients for preparing in your motel or cabin.



Departure / Arrival Place: Guests to arrange their own transport to Lismore or Ballina airport to arrive late afternoon of Friday 21st September, and be met and transported to their motel. Departure from motel each day. Charter bus to Brisbane in time for the opening of SERA2018 at 6.00 pm, Monday 24th September

10.2 Field Trip: Coastal Restoration – The mighty Tweed

Participants will explore three separate coastal restoration projects in the Tweed, an area that supports Australia's third highest diversity of flora and fauna and contains one of the highest concentrations of threatened species. Commence the day by exploring a reconstruction project where 5 km of coast has been converted from a monoculture of weed (mainly bitou bush) to littoral rainforest and sclerophyll communities. Contributions on the day from government representatives, professional contractors and community can answer your questions on any part of the planning, implementation, monitoring and maintenance process. Participants will travel to nearby Pottsville Environment Park where assisted regeneration has facilitated the recovery of a range of coastal vegetation communities over the last 10 years. Lunch will be enjoyed as you look over the Stotts Island Nature Reserve, one of the largest remaining areas of lowland floodplain rainforest in New South Wales. Ecological restoration work has been occurring on this hard to access site since the 1990's. Discussions on approaches to restoration and techniques applied can occur over lunch. You will then travel to a 60 ha site that is being restored via good planning and assisted regeneration. The site contains saltmarsh, mangrove, lowland rainforest and sclerophyll forest. The works being undertaken along the ridge of the site is a great example of how to convert camphor laurel forest to native vegetation via assisted regeneration. The project includes participation of landholders, Council and professional contractors.

Date and Time: Friday 28th September 8:00am – 5:00pm

Cost: \$50 per person. Includes travel, packed lunch and restoration guides.

Departure / Arrival Place and Time: Bus set down outside the Athletics Centre, corner of Sir William MacGregor Drive and Campbell Road, UQ St Lucia at 7.30am

10.3 Field Trip: Stewartdale Nature Refuge koala habitat restoration project, Ripley

The Stewartdale koala restoration project is the largest on ground koala restoration project implemented in Queensland. Negotiations with the landholders, the Sporting Shooters Association of Australia and the Queensland government commenced in 2012 and in 2013, the 969 ha site was declared a Nature Refuge. Detailed restoration planning was undertaken and has guided the design and implementation of the project including seed collection, site preparation and the installation of 18 km of fauna friendly fencing designed to protect establishing trees while ensuring fauna movement throughout the site is retained. The site is being restored by assisted regeneration across approx. 65 ha and more than 114,000 trees have been planted with approx. 92% success rate. Participants will be guided around the site to observe firsthand how it is developing while gaining insights into the challenges and rewards of restoring large sites. Any questions you have about the project will be answered by a representative from the State government, the project manager and those intimately involved with the implementation of the project. Additional representatives from Birds Australia will also be available to talk about the 69 bird species so far recorded on Bundamba Lagoon and how this too influenced project design and works across the 211 ha project area. Queensland Parks and Wildlife



Service have also established a koala food plantation at the entrance to the site to assist feeding koalas at the Daisy Hill sanctuary. Morning tea and lunch on site overlooking Bundamba lagoon.

Partners in the project include the Sporting Shooters Association of Australia, the Department of Environment, Heritage and Protection (State Government), Birds Australia and professional contractor, Ecosure.

Date and Time: Friday 28th September 8:00am – 3:00pm

Cost: \$45 per person. Includes travel, packed lunch and restoration guides.

Departure / Arrival Place and Time: Bus set down outside the Athletics Centre, corner of Sir William MacGregor Drive and Campbell Road, UQ St Lucia at 7.30am

10.4 Field Trip: Lower Beechmont Conservation Area, Gold Coast

Lower Beechmont Conservation Area is managed by the City of Gold Coast and covers a total of 789 ha. Restoration work commenced on site in 2006 and more than 250 ha have been restored via assisted regeneration including large scale and intensive weed control. Four separate revegetation projects have also been implemented to between 2006 and 2016. The site contains 10 regional ecosystems ranging from remnant and regrowth sub-tropical rainforest and riparian areas to dry sclerophyll systems. It is home to 180 relocated koalas as well as a number of threatened flora and fauna species. The site is monitored and other management activities such as feral animal control and fire management continue together with intensive and ongoing restoration works. It is also frequently visited by many visitors and residents of the Gold Coast. Participants on this field trip will be able to see established regeneration areas, four stages of planting and how these areas were chosen to link key zones across the lower part of the site, in addition to experiencing one of the magnificent views looking over the heart of the Gold Coast. Morning tea on Clagiraba Creek and lunch at Freemans Rd lookout, the highest part of the site.

This field trip will require walking up to 5 km along tracks through the forest. A couple of 4WD's will be available to assist less mobile people from the car park into much of the site.

Date: Friday 28th September 8:00am – 5:00pm

Cost: \$50 per person. Includes travel, packed lunch and restoration guides.

Departure / Arrival Place and Time: Bus set down outside the Athletics Centre, corner of Sir William MacGregor Drive and Campbell Road, UQ St Lucia at 7.30am

10.5 Field Trip: Riparian Reconstruction

Riparian areas are often a focus for restoration as these regularly disturbed systems are frequently degraded by erosion, weed infestations and a higher edge to area ratio. When these systems are highly degraded and require major works to stabilise an area, often the go-to solution is rock which provide limited biodiversity outcomes.

On this field trip, participants will visit two sites on the Gold Coast where reinstating bank stability has been essential and balanced with a number of biodiversity objectives. One site is a freshwater system and is an established 10 year old project while the other has undergone recent works and is a tidal system. The site participants will visit is on the beautiful Currumbin Creek and is, a 2.4 km stretch of creek that has been stabilised by reconstructing the stream bed and utilising a number of approaches and materials, geomorphic insights and the restoration of 10.4 ha. Works have involved engineers, multiple Council departments, the local community group that formed in response to works and adjacent landholders. This area has successfully survived multiple high flow events and two large floods. The second site has recently been reconstructed



and as a highly visited park required a safe and stable foreshore while ensuring the banks were not breached impacting the lake. In addition to stabilisation, water quality improvements, mangrove, fish and crab restoration, approaches taken on this site to reduce the velocity of water on the foreshore by manipulating hydraulic forces during flood and tidal events, is show casing alternatives to simply installing rock. At both sites, geomorphologists, catchment and restoration experts as well as community members will be on hand to answer any questions. Morning tea in the park adjacent to Currumbin Creek and the lake and lunch on the foreshore of the Coomera River, Damien Leeding Park.

Date: Friday 28th September 8:00am – 5:00pm

Cost: \$45 per person. Includes travel, packed lunch and restoration guides.

Departure / Arrival Place and Time: Bus set down outside the Athletics Centre, corner of Sir William MacGregor Drive and Campbell Road, UQ St Lucia at 7.30am

10.6 Field Trip: Marine Restoration – Fish Habitat Restoration Projects

This scenic and informative trip north of Brisbane will explore fish habitat restoration projects in a range of coastal ecological communities including a number of innovative designs for fish habitat restoration achieved through collaborative partnerships with Traditional Owners, community groups, government, researchers and a regional NRM group. We will visit Hays Inlet saltmarsh restoration project at Redcliffe, a subtidal shellfish habitat restoration project at Pumicestone including reefs made from a biopolymer used for the first time in Australia and other projects where coir log designs are assisting the recovery of mangroves at Golden Beach and the Maroochy River. A boat trip on the exquisite Pumicestone Passage with a view of the Glasshouse Mountains across the water will be just one of the highlights of this journey.

Date: Friday 28th September 8:00am – 6:00pm

Cost: \$55 per person. Includes travel, boat trip on Pumicestone Passage, packed lunch and restoration guides.

Departure / Arrival Place and Time: Bus set down outside the Athletics Centre, corner of Sir William MacGregor Drive and Campbell Road, UQ St Lucia at 7.30am

8.00am	Registration					
9.00am	Welcome to Country & Conference Opening Professor Jakki Mohr					
9.30am	Bruce Pascoe Gerry Turpin					
10.00am	Professor Bruce Clarkson Professor David Lindenmayer					
10.30am	Morning Tea					
11.00am	Dr Maksym Polyakov					
11.30am	Dr Iain McDonald					
12.00pm	Lunch Natural Amphitheatre					
1.00pm	Concurrent sessions					
1.00pm 90 mins	Room 1 (T203)	Room 2 (T103)	Room 3 (T105)	Room 4 (N201)	Room 5 (N202)	Room 6 (S201)
	Symposium Session Ecological Restoration Practice in the Big Scrub in North-East NSW (Mike Delaney, Iain McDonald)	Open Session 1 Riparian and Coastal Wetland Restoration	Symposium Session The Multidisciplinary Aspects of Successful Mine Site Rehabilitation (Mari Kragl)	Symposium Session Novel Techniques and Applications for Restoration Monitoring (Paul Nevill)	Open Session 2 Social Dimensions of Restoration	Workshop Session Theory and Practice in Species Modelling for Conservation Restoration PART 1
	Symposium Session Adaptive Coastal Restoration - Responding to Change and Implementing Management (Iemma Purandare)	Open Session 7 Indigenous Values in Restoration	Symposium Session Emerging Eco-Engineering Solutions and Seed Enhancement Technologies to Combat Land Degradation (Todd Erickson)	Symposium Session Expanding the Restoration Toolkit (Luke Shoo, Valerie Hagger)	Open Session 8 Monitoring and Trajectory	Workshop Session Using the National Standard's Recovery Wheel at Your Site: A Participatory Workshop PART 1 (Iain McDonald)
	Symposium Session From Small to Large Scale Marine Coastal Restoration (Phoebe Stewart-Sinclair)	Symposium Session Community-Based Ecological Restoration in the Tropics (Robert Fisher)	Open Session 9 Seed Enablement, Technology and Genetics	Open Session 10 Databases, Tools, Methods and Technology	Symposium Session Mine Waste Rehabilitation for Ecological Sustainability: Perspectives (Longbin Huang)	Workshop Session Issues in Monitoring Restoration (Paul Nevill)
	Symposium Session Open Session 3 Aquatic Systems Restoration	Open Session 4 Soil and Soil Biota	Open Session 5 Mine Site Restoration Monitoring	Open Session 6 Social Dimensions of Restoration (cont.) and Science Communication	Open Session 14 Scaling Up Restoration	Symposium Session Trait-Based Ecological Engineering - Are Plant Traits a Useful Indicator of Restoration Targets? (Iain Willis, Jen Finn)
	Open Session 12 Restoration in Changing Climate	Open Session 13 Returning Ecosystem Function	Symposium Session Seagrass Restoration Network: A Community of Research and Practice (Elizabeth Sinclair)	Open Session 15 Marine Restoration	Open Session 16 Mine Site Restoration	Symposium Session Native Seed Restoration, Challenges and Opportunities (Simone Pedrini)
2.30pm	Afternoon Tea					
3.00pm	Concurrent sessions					
3.00pm 90 mins	Room 1 (T203)	Room 2 (T103)	Room 3 (T105)	Room 4 (N201)	Room 5 (N202)	Room 6 (S201)
	Open Session 3 Aquatic Systems Restoration	Open Session 4 Soil and Soil Biota	Open Session 5 Mine Site Restoration Monitoring	Open Session 6 Social Dimensions of Restoration (cont.) and Science Communication	Open Session 14 Scaling Up Restoration	Symposium Session Trait-Based Ecological Engineering - Are Plant Traits a Useful Indicator of Restoration Targets? (Iain Willis, Jen Finn)
	Symposium Session From Small to Large Scale Marine Coastal Restoration (Phoebe Stewart-Sinclair)	Symposium Session Community-Based Ecological Restoration in the Tropics (Robert Fisher)	Open Session 9 Seed Enablement, Technology and Genetics	Open Session 10 Databases, Tools, Methods and Technology	Symposium Session Mine Waste Rehabilitation for Ecological Sustainability: Perspectives (Longbin Huang)	Workshop Session Issues in Monitoring Restoration (Paul Nevill)
	Symposium Session Adaptive Coastal Restoration - Responding to Change and Implementing Management (Iemma Purandare)	Open Session 7 Indigenous Values in Restoration	Symposium Session Emerging Eco-Engineering Solutions and Seed Enhancement Technologies to Combat Land Degradation (Todd Erickson)	Symposium Session Expanding the Restoration Toolkit (Luke Shoo, Valerie Hagger)	Open Session 8 Monitoring and Trajectory	Workshop Session Using the National Standard's Recovery Wheel at Your Site: A Participatory Workshop PART 1 (Iain McDonald)
	Symposium Session Ecological Restoration Practice in the Big Scrub in North-East NSW (Mike Delaney, Iain McDonald)	Open Session 1 Riparian and Coastal Wetland Restoration	Symposium Session The Multidisciplinary Aspects of Successful Mine Site Rehabilitation (Mari Kragl)	Symposium Session Novel Techniques and Applications for Restoration Monitoring (Paul Nevill)	Open Session 2 Social Dimensions of Restoration	Workshop Session Theory and Practice in Species Modelling for Conservation Restoration PART 1
	Open Session 12 Restoration in Changing Climate	Open Session 13 Returning Ecosystem Function	Symposium Session Seagrass Restoration Network: A Community of Research and Practice (Elizabeth Sinclair)	Open Session 15 Marine Restoration	Open Session 16 Mine Site Restoration	Symposium Session Native Seed Restoration, Challenges and Opportunities (Simone Pedrini)
4.30pm	Conference Closing Room 1 (T203)					
4.45pm	Early Career and Student Function Room 7 (C207)					
7.00pm	SERA Annual General Meeting (current members) Saint Lucy Caffe, UQ St Lucia					
	Conference Dinner and Restoration Awards Ceremony Hillstone St Lucia					

Big Scrub Field Trip

Conference Field Trips

11 Program

Tuesday 25 September

08:00 - 09:00	Delegate Registration					
09:00 - 10:30	Opening Plenary Room 1 (T203)					
09:00 - 09:20	Conference Welcome					
09:20 - 09:30	Welcome to Country					
09:30 - 10:00	Professor Jakki Mohr: Challenges in innovation in ecological restoration: Data from the U.S.					
10:00 - 10:30	Professor David Lindenmayer: Key lessons from long-term research for restoration and integrating conservation and agricultural production					
Chair	Kingsley Dixon					
10:30 - 11:00	Morning Tea Break					
11:00 - 12:00	Plenary 2					
11:00 - 11:30	Dr Maksym Polyakov: Thinking differently about restoration: economists' perspective					
11:30 - 12:00	Dr Tein McDonald: How the National Restoration Standards' affirmation of native ecosystems as references can strengthen SERA's function as a broad church					
Chair	TBA					
12:00 - 13:00	Lunch Break					
13:00 - 14:30	Symposium Session Ecological Restoration Practice in the Big Scrub in North-East NSW	Open Session 1 Riparian and Coastal Wetland Restoration	Symposium Session The Multidisciplinary Aspects of Successful Mine Site Rehabilitation	Symposium Session Novel Techniques and Applications for Restoration Monitoring	Open Session 2 Social Dimensions of Restoration	Workshop Session Theory and Practice in Species Modelling for Conservation Restoration PART 1
Breakout session 1 90 mins						
Room	Room 1 (T203)	Room 2 (T103)	Room 3 (T105)	Room 4 (N201)	Room 5 (N202)	Room 6 (S201)
Organiser	Mike Delaney and Tein McDonald		Marit Kragt	Paul Nevill		Sean Tomlinson
Chair	Mike Delaney and Tein McDonald	Valerie Hagger	Maksym Polyakov	Paul Nevill and Mieke van der Heyde	Nikola Manos	
13:00 - 13:15	Saving the Big Scrub Mike Delaney	Evolution of a riparian restoration project: stabilisation and revegetation of the Damian Leeding Foreshore Marjolein "Mars" Oram	Introduction: Mine site rehabilitation - an interdisciplinary approach Marit Kragt	DNA metabarcoding - a new approach to fauna monitoring in mine site restoration Paul Nevill	Engaging schools and the community in riparian restoration - a Wilsons River case study Georgina Jones	Theory and Practice in Species Modelling for Conservation Restoration PART 1
13:15 - 13:30	Recovery processes underpinning rainforest restoration in the Big Scrub Tein McDonald	Reef Aid: restoration of wetlands and gullies in priority catchments to improve water quality in the Great Barrier Reef Lynise Wearne	The new standards for improving mine site restoration Kingsley Dixon	Assessing the use of metabarcoding to monitor mine site restoration Mieke van der Heyde	Pest Free Auckland - enabling community-led conservation Brett Butland	<i>*Please note that participants will need to bring their own laptop to this session, onto which they have pre-loaded the statistics package to be used in the workshop. The statistics package and workshop data are available on the SERA website, and installation instructions are included in the workshop booklet. Macintosh users are recommended to either use Parallels, or bring a Windows machine.</i>
13:30 - 13:45	Camphor conversion to rainforest: restoration of mixed rainforest and camphor laurel patches to lowland rainforest case study Dan Cox	Case study of avifaunal diversity of wetlands in industrial and non-industrial areas, Vadodara, Gujarat, India Jagruati Rathod	Why is designing effective and efficient policies for mine rehabilitation proving to be so hard? Ben White	Automated monitoring of seedling emergence and early mortality from drone imagery Todd Buters	Rehabilitating Roe 8: a standard approach to a not so standard restoration project Tom Atkinson	
13:45 - 14:00	Wanganui Gorge ecological restoration - a ten year case study in rainforest restoration in a biodiversity hotspot Ian Stych	Implementing strategic coastal wetland restoration on a catchment scale Duncan Rayner	Economics to the rescue: non-market valuation of mine site rehabilitation Marit Kragt	Using UAV-based Lidar to assess forest structural attributes for monitoring of restoration plantings Nicolò Camarretta	When the funding finishes - continuing conservation efforts through community connections Samantha Colbran	
14:00 - 14:15	Big Scrub - making a vision of genetically appropriate seed production areas a reality Tony Parkes	Restoring coastal wetland water quality: ecosystem service provisioning by a native freshwater bivalve Christina Buelow	The global knowledge base on the social aspects of mine closure Sarah Holcombe	Using invertebrate DNA (IDNA) metabarcoding to track restoration trajectories of arthropods across two mine site chronosequences Kristen Fernandes	Six years and \$250,000 - what a community group learnt from implementing a major project Suzanne Pritchard	
14:15 - 14:30	Facilitated questions	Remediation of legacy acid sulfate soil disturbance: East Trinity case study Michelle Martens	A risk-based framework for completion criteria development for mine closure planning in Western Australia Renee Young	Facilitated questions	How ecological restoration can help facilitate a nature conservation culture Todd Dudley	
14:30 - 15:00	Afternoon Tea Break					

Tuesday 25 September (cont)

15:00 - 16:30 Breakout session 2 90 mins	Open Session 3 Aquatic Systems Restoration	Open Session 4 Soil and Soil Biota	Open Session 5 Mine Site Restoration Monitoring	Open Session 6 Social Dimensions of Restoration (cont.) and Science Communication	Workshop Session Theory and Practice in Species Modelling for Conservation Restoration PART 2	
Room	Room 1 (T203)	Room 2 (T103)	Room 3 (T105)	Room 4 (N201)	Room 5 (N202)	Room 6 (S201)
Organiser						Sean Tomlinson
Chair		Lynise Wearne	Alison Ritchie	Peter Erskine	Tein McDonald	
15:00 - 15:15	Recreating wallum wetland habitat for threatened 'acid' frog species Ed Meyer	Walking to scale up soil restoration by cyanobacterisation in drylands Yolanda Canton	Measuring the recovery of coal mine rehabilitation following fire in Queensland using remote sensing and ground surveys Phil McKenna	The capacity of restored urban forests to support native birds: Ecological or social restoration? Elizabeth Elliot-Hogg	Theory and Practice in Species Modelling for Conservation Restoration PART 2	
15:15 - 15:30	Integrated solutions for ecological restoration and management of tropical freshwater swamp forest Yixiong Cai	Artificially-constructed depressions provide insights into the role of soil disturbing animals in the recovery of degraded drylands David Eldridge	Developing objectives and completion criteria for post-mine landforms following silica sand mining Andrew Butler	Connecting restoration science, policy and industry: lessons from the WA Biodiversity Science Institute Guy Boggs	*Please note that participants will need to bring their own laptop to this session, onto which they have pre-loaded the statistics package to be used in the workshop. The statistics package and workshop data are available on the SERA website, and installation instructions are included in the workshop booklet. Macintosh users are recommended to either use Parallels, or bring a Windows machine.	
15:30 - 15:45	Trialing stream rehabilitation tools to attenuate high nitrate loads in agricultural headwaters Brandon C. Goeller	Geochemical and mineralogical factors limiting soil structure formation in magnetite iron ore tailings Songlin Wu	Using data from drones to derive restoration targets for Ranger Uranium Mine Mitchel Rudge	Using the YouTube platform to promote Gondwana Link eco-restoration Basil Schur		
15:45 - 16:00	Reverting the Brisbane River Estuary from brown to blue Jesper Nielsen	A question of time; Mycorrhizal community change along a restoration trajectory Vicky McGimpsey	Monitoring understorey from UAV-derived data: a review and future directions for monitoring ecosystem restoration Lorna Hernandez Santin	Creek Heroes' are winning the battle in the City of Onkaparinga urban watercourse restoration project Nikola Manos		
16:00 - 16:15	Using Hooded Plovers to promote restoration of lake foreshores in WA's Great Southern Basil Schur	Microbial Biobanking: Cyanobacteria-rich topsoil facilitates mine rehabilitation Wendy Williams	Assessing understorey vegetation diversity of savanna woodland to inform mine-site restoration in Kakadu National Park Jaylen Nicholson	RegenTV - a new way to share stories about restoration Virginia Bear		
16:15 - 16:30	The Mokoan Project: The ecological renewal of an ephemeral wetland system in North-east Victoria Lisa Farnsworth					
16:45 - 18:45	Early Career and Student Function Room C207					
19:00 - 20:30	SERA Annual General Meeting (current members only) Saint Lucy Caffe, UQ St Lucia					

Wednesday 26 September

07:20 - 08:30

UQ Guided Restoration Walk hosted by the Society for Conservation Biology

08:00 - 09:00

Delegate Registration

09:00 - 10:30
Plenary 3

Opening Plenary
Room 1 (T203)

09:00 - 09:30

Bruce Pascoe: Slow food: The arc of taste

09:30 - 10:00

Gerry Turpin: Working with Indigenous biocultural knowledge in natural resource management

10:00 - 10:30

Professor Bruce Clarkson: Balancing the science and politics of an urban ecological restoration project

Chair

Vern Newton

10:30 - 11:00

Morning Tea Break

11:00 - 12:00
Plenary 4

11:00 - 11:30

Dr Fangyuan Hua: Understanding potential synergies and trade-offs between biodiversity and ecosystem services to inform forest restoration strategies

11:30 - 12:00

Dr Sarah Frias-Torres: Restoring the coral reefs of the future

Chair

Vern Newton

12:00 - 13:00

Lunch Break

13:00 - 14:30
Breakout
session 1
90 mins

Symposium Session
Adaptive Coastal
Restoration -
Responding to Change
and Implementing
Management

Open Session 7
Indigenous Values in
Restoration

Symposium Session
Emerging Eco-Engineering
Solutions and Seed
Enhancement
Technologies to Combat
Land Degradation

Symposium Session
Expanding the
Restoration Toolkit

Open Session 8
Monitoring and
Trajectory

Workshop Session
Using the National
Standard's Recovery
Wheel at Your Site:
A Participatory Workshop
PART 1

Room

Room 1 (T203)

Room 2 (T103)

Room 3 (T105)

Room 4 (N201)

Room 5 (N202)

Room 6 (S201)

Organiser

Jemma Purandare

Todd Erickson

Luke Shoo and Valerie Hagger

Tein McDonald

Chair

Jemma Purandare

Gerry Turpin

Todd Erickson and Jason Stevens

Luke Shoo and Valerie Hagger

Nicholas Dickinson

13:00 - 13:15

Introduction: Coastal restoration in
Australia and the Coastal Restoration
Network
Jemma Purandare

Restoring tree cover in the
Ramsar-listed Koorangie marshes
through an indigenous partnership
Damien Cook

Introduction: The science
underpinning Western Australian
restoration programs... and beyond
Jason Stevens

Introduction: Expanding the
restoration toolkit
Luke Shoo

Responses of fauna to mine site
restoration
Sophie Cross

Using the National Standard's
Recovery Wheel at Your Site: a
Participatory Workshop
Facilitators: Tein McDonald,
Paul Gibson-Roy, Jen Ford and
Damien Cook

13:15 - 13:30

Sexual restoration on coral reefs
Peter Harrison

Acoustic recording to monitor bird
song after aerial 1080 operation
from an indigenous Maori
perspective
Richard Witehira

Recent advancements in
restoration-engineering and seed
enhancement technologies for use in
land rehabilitation
Todd Erickson

Conservation orientated restoration -
rescuing threatened plant species by
restoring their environments and
restoring environments using
threatened plant species
Sergei Volis

Defining the parameters of
successful bush regeneration
outcomes
Brendan Stephen

13:30 - 13:45

Reinventing the wheel: The use of
the Standards and Recovery Wheel
for marine and coastal restoration
projects
Adam Smith

Investigation on proximate and
underlying causes of deforestation
to identify remedial measures
(Case study: Ywangan Township,
Shan State, Myanmar)
Phyu Phyu Lwin

Seed ecology supports and enhances
restoration practices
Shane Turner

Using traits to learn lessons from
sub-optimal restoration outcomes
John Dwyer

Monitoring plant survival in
revegetated agricultural landscapes
Sacha Jellinek

13:45 - 14:00

Can bivalve habitat restoration
improve degraded estuaries?
Ian McLeod

Community solutions to
rehabilitating seabird breeding
habitat on Big Island (Boairdoong),
Five Islands Nature Reserve
Rowena Morris

Innovative seed technologies for
restoration in a biodiversity hotspot
Alison Ritchie

Use of seasonal forecasting to
manage weather risk in ecological
restoration
Valerie Hagger

Spatio-temporal analysis of savanna
woody cover to drive closure criteria
for Ranger Uranium Mine
Tim Whiteside

14:00 - 14:15

Coastal wetland fish nursery function
in an agricultural dominated river
catchment - 20 years of
management Investment
Nathan Waltham

Forest gardens are a financially-sound
land rehabilitation model
Kamal Melvani

Innovative nature-based strategies
for dryland restoration: The potential
of indigenous cyanobacteria
Miriam Munoz-Rojas

Restore and Renew: Large scale
evolutionary, environmental and
ecological information in support of
restoration practices
Maurizio Rossetto

Seedling growth responses to
species, neighbourhood and
landscape scale effects during
tropical forest restoration
Lachlan Charles

14:15 - 14:30

Panel discussion: Crossing the divide
between theoretical and applied: The
value of science informing
management
Moderator: Jemma Purandare,
including all speakers, Susie
Chapman, and Mark Read

Restoration engineering solutions to
direct seeding problems guided by
practitioner perceptions and seed
requirements
Monte Masarei

Smart allocation of restoration funds
Luke Shoo

14:30 - 15:00

Afternoon Tea Break

Wednesday 26 September (cont)

15:00 - 16:30 Breakout session 2 90 mins	Symposium Session From Small to Large Scale Marine Coastal Restoration	Symposium Session Community-Based Ecological Restoration in the Tropics	Open Session 9 Seed Enablement, Technology and Genetics	Open Session 10 Databases, Tools, Methods and Technology	Symposium Session Mine Waste Rehabilitation for Ecological Sustainability- Industry Perspectives	Workshop Session Issues in Monitoring Restoration
Room	Room 1 (T203)	Room 2 (T103)	Room 3 (T105)	Room 4 (N201)	Room 5 (N202)	Room 6 (S201)
Organiser	Phoebe Stewart-Sinclair	Robert Fisher			Longbin Huang	Paul Nevill
Chair	Phoebe Stewart-Sinclair and Elisa Bayraktarov	Robert Fisher	Alison Ritchie	Renee Young	Longbin Huang, David Parry and Jason Stevens	
15:00 - 15:15	Introduction Phoebe Stewart-Sinclair	Social landscape and community capacity are important considerations in the design of community-based ecological restoration John Herbohn	The past, present and future of the native seed market in Europe Simone Pedrini	The case for a closer look at constructed wetlands for mine water treatment in Queensland Dominique Taylor	Introduction: Current frontiers of the closure and rehabilitation of mine wastes - Industrial needs shape R&D direction Longbin Huang	Issues in Monitoring Restoration
15:15 - 15:30	Marine coastal restoration of the last 45 years - objectives, successes, costs and scales Elisa Bayraktarov	Community-based native seed production for restoration in Brazil Daniilo Ignacio de Urzedo	Addressing Kunzea robusta (kAnuka) direct seeding constraints in New Zealand Ana Magalhaes Teixeira	Soil imprinting combined with an artificial soil crusting agent dramatically increases broadcast seed emergence Mark Dobrowolski	Challenges of mine waste rehabilitation: From environmental quality to ecological sustainability David Parry	
15:30 - 15:45	How to restore a coral reef: When bigger is better Sarah Frias-Torres	Leading and lagging impact indicators for evaluation and adaptive management of forest restoration Liz Ota	Some results of research on the quality of native plant seeds collected from an arid zone of Mongolia Altantsetseg Balt	Global map on the ecological uncertainty of forest landscape restoration success Renato Crouzeilles	Results from nine years of continuous monitoring of the ecosystem restoration of a waste rock landform at Ranger uranium mine, Northern Territory Ping Lu	
15:45 - 16:00	From small to large to largest: The Nature Conservancy's approach to scaling marine restoration Simon Reeves	Designing effective community -based ecological restoration: The case of ACIAR Forest Restoration Project in the Philippines Nestor Gregorio	Capturing genetic diversity for ecological restoration through seed collecting Marlien van der Merwe	Mapping reconstructed plant community types in cleared areas of NSW Adam Roff	Waste rock rehabilitation of magnetite-Fe ore mine under dry land conditions - plant establishment consideration Jason Stevens	
16:00 - 16:15	Social and ecological challenges and new directions in seagrass restoration John Statton	Ecological restoration and negotiated landscapes: Case studies from Asia William Jackson	Choosing appropriate seed sources: The importance of environment, genetics and demography for predicting restoration outcomes Melinda Pickup	Determining restoration potential of livestock grazed Mediterranean shrublands using fenced grazing exlosures Zoe Poulsen	Bauxite residues rehabilitation - environmental challenges and ecological expectation under subtropical Conditions Anja Urban	
16:15 - 16:30	Restoration of coastal ecosystems and Blue Carbon Catherine Lovelock	Facilitated questions		The new Index of Biodiversity Surveys for Assessments improves access to Western Australian biodiversity information Mike Young	Facilitated questions	
16:45 - 18:45	Poster and Trades Session Room C207					



Thursday 27 September

08:00 - 09:00	Delegate Registration					
09:00 - 10:30 Plenary 5	Opening Plenary Room 1 (T203)					
09:00 - 09:30	Associate Professor Daniel Laughlin: Are historical reference conditions an ecological fairy tale, or are they more relevant than ever?					
09:30 - 10:00	Linda Bell: Transferring theory into practice – how hard can it be? Lessons from Saving our Species Program.					
10:00 - 10:30	Professor Kerrie Wilson: Better decision making in ecological restoration					
Chair	Bruce Clarkson					
10:30 - 11:00	Morning Tea Break					
11:00 - 12:00 Plenary 6						
11:00 - 11:30	Dr Linda Broadhurst: How genetics can influence long term restoration outcomes					
11:30 - 12:00	Dr Paul Gibson-Roy: Native seed production 'farming for restoration supply': Lessons from local and US sectors					
Chair	Bruce Clarkson					
12:00 - 13:00	Lunch Break					
13:00 - 14:30 Breakout session 1 60 mins	Open Session 11 Threatened Species Conservation	Open Session 12 Restoration in a Changing Climate	Symposium Session Seagrass Restoration Network: A New Community of Research and Practice	Symposium Session Native Seed for Restoration, Challenges and Opportunities	Open Session 13 Returning Ecosystem Function	
Room	Room 1 (T203)	Room 2 (T103)	Room 3 (T105)	Room 4 (N201)	Room 5 (N202)	
Organiser			Elizabeth Sinclair	Simone Pedrini		
Chair	TBC	Renee Young	Elizabeth Sinclair and John Statton	Kingsley Dixon	Nicholas Dickinson	
13:00 - 13:15	Germination, cultivation and ex situ conservation of an extremely rare palm endemic to New Caledonia Pierre Lostier	Achieving multiple benefits in ecological restoration for biodiversity conservation and carbon sequestration Valerie Hagger	Introduction: Seagrass Restoration Network: A new SER community building confidence in seagrass restoration John Statton	Introduction: The International Network for Seed Based Restoration Kingsley Dixon	Urban forest restoration has opposing indirect effects on litter decomposition and no effect on denitrification Kiri Joy Wallace	
13:15 - 13:30	Balancing acts: Staged restoration of endangered species habitat in the Brickpit, Sydney Olympic Park 2006-2018 Jenny O'Meara	Local provenancing in subtropical rainforest restoration: For better or worse? A review of practitioners' perspectives Sally L Cooper	Understanding the tropical seagrass seed story for improved seagrass restoration Emma Jackson	Status of the Australian native seed sector: Results of a nationwide survey Paul Gibson Roy	How rapidly do litter decomposition and decomposer invertebrates return during rainforest restoration on disused pastures? Marisa Stone	
13:30 - 13:45	Maximising ecological restoration outcomes through threatened species management programs Jen Ford	Integrating climate change and local adaptation to inform species and provenance choice for woodland restoration Peter Harrison	Recruitment facilitation to rehabilitate lost <i>Amphibolis antarctica</i> in South Australia Jason Tanner	Optimisation of seed coating technology to native grasses Simone Pedrini	The recovery of functional diversity with restoration Sophie Hale	
13:45 - 14:00	Bungawalbin Catchment endangered emu conservation through habitat enhancement, vertebrate pest control and community engagement Paul O'Connor	Model for integrated peatland restoration in Indonesia: A study from Ular Serapat Grahame Applegate	Tackling a global problem - developing seagrass restoration methods for boat mooring scars Elizabeth Sinclair	A Protocol Development Tool for native seed coating Khiraj Bhalsing	Direct seeding to restore drooping Sheoak Grassy Woodlands on Dakalanta Wildlife Sanctuary, Eyre Peninsula, South Australia James Walsh	
14:00 - 14:15	How did we go? A genetic analysis of the <i>Gossia gonocladia</i> Recovery Program Laura Simmons	Addressing Indonesia's haze crisis through a multi-sector, interdisciplinary program based on accurate primary data field-research Laura Graham	Spreading the seeds of change: Optimising community engagement efforts to improve seagrass restoration Lana Kajlich	Resolving dormancy in difficult-to-germinate Australian Ericaceae Michael Just	Coordinated recovery planning for threatened woodlands Hannah Fraser	
14:15 - 14:30			Developing the steps required for the effective use of seed in seagrass restoration John Statton	Facilitated questions		
14:30 - 15:00	Afternoon Tea Break					

Thursday 27 September (cont)

15:00 - 16:30 Breakout session 2 60 mins	Symposium Session Trait-Based Ecological Engineering – Are Plant Traits a Useful Indicator of Restoration Targets?	Open Session 14 Scaling Up Restoration	Open Session 15 Marine Restoration	Open Session 16 Mine Site Restoration		
Room	Room 1 (T203)	Room 2 (T103)	Room 3 (T105)	Room 4 (N201)		
Organiser	Jarrah Wills and Jennifer Firn					
Chair	Mimi McGivran	Bruno Fogliani	Phoebe Stewart-Sinclair	Peter Erskine		
15:00 - 15:15	Introduction: Theoretical understanding of global patterns plant traits Angela Moles	Scaling up - Is it possible or an ongoing aspiration? Jen Ford	Operation crayweed: Restoration of underwater forests Alexandra Campbell	Tailings dam rehabilitation - A new perspective Carmen Castor		
15:15 - 15:30	Leaf nutrients, not specific leaf area, are consistent functional indicators of short-term environmental change in grasslands Jennifer Firn	Large scale restoration at small scale costs in Southwest Western Australia Glen Steven	From little things, big things can grow back again: Pumicestone Shellfish Habitat Restoration Project Susie Chapman	Establishing self-sustaining ecological mine rehabilitation that achieves recognised ecological communities Travis Peake		
15:30 - 15:45	Plant ecological strategies and restoration: How functional traits shape community assembly, structure and diversity Robert Kooyman	Scaling up reforestation: Lessons learnt from three different reforestation approaches in Myanmar Thaung Naing Oo	The feasibility and first steps of restoring Australia's disappearing Giant Kelp (<i>Macrocystis pyrifera</i>) forests Cayne Layton	Thirty years of ecological restoration of mining-degraded areas in New Caledonia: Synthesis and production of success indicator Hamid Amir		
15:45 - 16:00	Do leaf traits reflect ecosystem processes useful for tropical reforestation? Jarrah Wills	Leverage trust-based partnerships to implement stream restoration at scale: A CAREX case study Catherine Febria	Bleaching mitigation and restoration of Micronesian Staghorn Acropora Laurie Raymundo	From Remediation to Ecological Engineering: The Paradigm Shift in Concepts and Technology of Tailings Rehabilitation Longbin Huang		
16:00 - 16:15	Seed size: Crucial in the dynamics and practice of tropical forest restoration? Carla Catterall	Upscaling best practice: A 300 ha dry shrubland restoration within an irrigated farm landscape matrix Nicholas Dickinson	Habitat restoration or creation - A feasibility assessment for reuse of dredged marine sediment Kevin Kane	Thirty years of ecological restoration of mining-degraded areas in New Caledonia: Comparative analysis and recommendations Bruno Fogliani		
16:15 - 16:30	Trait-based species assemblages for ecological restoration in a changing world Daniel Laughlin	Applying the SERA Standards to large-scale restoration in Gondwana Link (South-Western Australia) - challenges and approaches Barry Heydenrych	A diagnosis of institutional readiness to implement mangrove forest landscape restoration in Indonesia Benjamin Brown	Long-term research supports a reduced fertilizer application rate for mine site forest restoration in South West Australia Andrew Grigg		
16:30 - 17:00	Official Conference Closing Room 1 (T203)					
19:00 - 23:00	Conference Dinner and Restoration Awards Ceremony Offsite Venue: Hillstone St Lucia					

Friday 28 September

08:00 - 17:00	Conference Field Trips Meeting point: Bus set down at the Athletics Centre (Playing Fields 7), on the corner of Sir William MacGregor Drive and Campbell Road, UQ at 7:30am for a 8:00am departure.
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11.3 Poster presentations

Poster presentations will be displayed in Room 7 (C207) from 8:00am – 4:30pm each day, with presenters being available on Wednesday 28th September from 4:45 – 6:45pm to answer questions at the Poster and Trades Function. Poster board number is indicated in brackets.

- (#1) The Slacks Creek Restoration Project: Planning urban restoration projects to deliver ecological assets for communities - Dan Cole, The Water and Carbon Group
- (#2) Temporal dynamics of urban forest restoration plantings- Katherine de Silva, Victoria University of Wellington
- (#3) Using a common sampling frame to organise monitoring of an urban restoration project- Rachel Omodei, Emerge Associates
- (#4) Implementing nation-wide tropical peat fire monitoring in Indonesia- Andri Thomas, Borneo Orangutan Survival Foundation
- (#5) Saving Sphagnum moss: Restoring populations following wildfire- Lee Jeffery, Conservation SA
- (#6) Strategic identification of simple management tools to solve complex restoration puzzles- Alexi Williams, ACT Government
- (#7) Disturbing times in the Westonia Commons- Haylee D'Agui, Curtin University
- (#8) Assessing the effectiveness of understory prescribed burning for managing fire risk in Mediterranean landscapes (Northeastern Spain)- Beatriz Duguay Pedra, University of Barcelona
- (#9) Maintaining wetland habitats under climate change - Prioritising management actions for the Gippsland Lakes- Sacha Jellinek, Greening Australia & the Arthur Rylah Institute
- (#10) Resilience isn't always healthy: using stressors to overcome negative resistance and resilience in stream restoration- Isabelle Barrett, University of Canterbury
- (#11) Objectives, measures of success and outcomes of marine and coastal restoration- Shantala Brisbane, University of Queensland
- (#12) A global review of invertebrate conservation translocations- Rachel Lee, Deakin University
- (#13) Constructed "habitat stacks" for fauna recovery within vegetation offset projects- Steven Milner, Sunshine Coast Council
- (#14) Indigenous biocrust cyanobacteria promotes seedling recruitment of plant species native to the Pilbara, Western Australia- Melissa Chua, University of Western Australia
- (#15) Treatments to improve native understory establishment in mine waste rock material in northern Australia- Megan Parry, Charles Darwin University
- (#16) International Network for Seed-based Restoration- Simone Pedrini, ARC Centre for Mine Site Restoration, Curtin University
- (#17) Indigenous forest-based livelihoods and bauxite mining: A case-study of the Weipa - Aurukun region, Northern Australia- John Meadows, University of the Sunshine Coast
- (#18) Community mangrove restoration and livelihood improvement in Ayeyarwady delta, Myanmar- Sang Phan, The University of Queensland
- (#19) Culturally modified (Aboriginal scarred) trees: Sharing knowledge to improve management of veteran cultural trees - Dan Cole, The Water and Carbon Group
- (#20) Joining the dots versus growing the blobs: optimal targeting of ecological restoration- Maksym Polyakov, University of Western Australia



(#21) Who owns the land containing the remaining key natural environmental features in Queensland? - Yi Zhang, The University of Queensland

(#22) Evaluating the capabilities of hyperspectral and SENTINEL-2 information for quantitative chlorophyll estimation on induced biocrusts - José Raúl Román Fernández, University of Almería

12 Workshops

Workshop: Theory and Practice in Species Modelling for Conservation Restoration

Date and Time: Tuesday 25th September, 1:00pm – 4:30pm (runs over two sessions)

Organiser: Sean Tomlinson

Description: Increasingly spatial modelling is becoming a part of how long-term conservation activity is planned and undertaken. This has partly been encouraged by the emergence of simple, freely available software packages that are capable of executing these analyses, and partly by the emergence of large, freely-available data sets that inform these analyses. Species distribution projections are now used to suggest all kinds of complicated conservation actions, from reintroduction and assisted colonisation programs, through ecological restoration programs. The fact that these analyses are increasingly simple, and produce very convincing outcomes is worrying, because often there is very little consideration devoted to the meaning of the associations between the model projections and what mechanisms might be limiting the distributions of the species in question. It is only by understanding what these interactions between the organism and the environment might entail that we can tailor really useful conservation actions on the basis of distribution projections. Misunderstanding these relationships, or misrepresentation of them in poor quality models can lead to conservation and restoration failure, or worse, to a perennial management encumbrance causing more harm than benefit. This workshop is designed to cover the basics on different approaches to spatial modelling, with simple interactive exercises demonstrating some of the more common mistakes encountered. It also finishes up with a review of some of my recent developments in species distribution modelling of short range endemic flora, with suggestions for a standardised technique for the guidance of translocation and restoration of such species in Australia.

Instructions: Participants will need to bring their own laptop to this session, onto which they have pre-loaded the statistics package to be used in the workshop. The statistics package and workshop data are available on the SERA website, and installation instructions are included in the workshop booklet. The second half of the workshop uses an R script, and so R and all the specific packages need to be installed and updated. Instructions are again included in the workshop booklet, but the packages involved have been developed for a Windows operating systems. Macintosh users are recommended to either use Parallels, or bring a Windows machine.

The Event



Workshop: Using the National Standard's Recovery Wheel at Your Site: A Participatory Workshop

Date and Time: Wednesday 26th September, 1:00pm - 2:30pm

Organisers: Tein McDonald, Paul Gibson-Roy, Jen Ford and Damien Cook

Description: The 'recovery wheel' from Australia's National Restoration Standards can readily convey to stakeholders how a restoration site is progressing. This interactive/open session will commence with a brief introduction to using the recovery wheel, illustrated by case studies.

Instructions: Participants keen to share their own examples are encouraged to send a short summary of the project's 'before and after' condition to tein.mcdonald@seraustralasia.com by August 31st but delegates will also have a chance to fill in a wheel for their own site during the workshop. Worksheets will be provided but please also consider bringing your smartphone with the recovery wheel loaded on it

<http://www.seraustralasia.com/standards/appendix5.html>

Workshop: Issues in Monitoring Restoration

Date and Time: Wednesday 26th September, 3:00pm - 4:30pm

Organiser: Paul Nevill

Description: This workshop follows the symposia and open sessions on restoration monitoring. In this workshop we aim to identify knowledge gaps and practical barriers that need action by researchers, policymakers, and practitioners to improve monitoring of restoration.

We would like to acknowledge Sophie Cross at <https://sunsoutsquamataout.com/photography/> for images used within this publication



Regen Australia has successfully planned and delivered a diverse range of projects using a variety of methods in many different ecosystems — from urban bushland to the management of natural and ecologically significant areas. All projects are guided by project-specific management plans.

Ecological Restoration

At Regen Australia, we identify processes that are threatening the stability of a site, then design and implement countermeasures to those threats to restore the structure and function of the disturbed ecosystem. This is not just an exercise in weed control. Every action taken will have some effect on the site condition from changes in biotic and abiotic soil condition to variations in light and space, species assemblage and microclimates.

Vegetation Management

Regen Australia implements techniques and processes to rehabilitate, stabilise and remediate both natural areas and urban assets. Using our own native nursery tube stock, Regen Australia has revegetated and maintained a plethora of natural and urban assets for a broad range of private clients and government agencies. Our vegetation management services produce and maintain important linkages from natural areas to the built environment and enhance our open spaces.

Native Nursery

Regen Australia owns and operates a native nursery that has the capacity to supply more than 500,000 local native tube stock plants. To date, we have successfully produced over 3 million local provenance plants for use in a large range of restoration projects in QLD and NSW. Regen Australia propagates from local provenance seed. This ensures that plants are suited to local environmental conditions and will give your revegetation project the best chance of success.





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